What's New in *RACER* 2006 (version 8.0.0)

Users who are already familiar with previous versions of *RACER* should be aware of additional functionality and the new and updated Phases and Technologies that were added to *RACER* 2006 (version 8.0.0). Updates that have been added to *RACER* 2006 include:

- Database Update
- New Estimate Documentation Report
- New Administrative Land Use Controls Technology
- New Estimating Templates
- New MMRP Supplemental Investigation Technology (for USAF users)
- Sonic Drilling Method
- Changes to Operations & Maintenance Phase
- Changes to Remedial Design Phase
- Functionality Changes to *RACER*

Details about each of these items are provided below.

Database Update

The *RACER* cost database has been updated for 2006, including assembly prices for material, labor, and equipment. Per diem rates, escalation factors, and location modifiers have also been updated for *RACER* 2006. Previous cost estimates from *RACER* 2004 and *RACER* 2005 can be imported into *RACER* 2006 and updated to utilize the new prices, if the user would like to update their costs.

New Estimate Documentation Report

The Estimate Documentation Report provides a comprehensive summary of all inputs and parameters entered by the estimator. This report also includes all descriptions, comments, and notes at all estimating levels. Estimator information and reviewer information are also included in this report, along with entered and default parameters for every technology in *RACER*. The purpose of this report is to create an audit trail that documents everything that went into the estimate. A person receiving this report can recreate your estimate in *RACER* and obtain the same results without having the actual *RACER* file. In the past, the Parameters Technology level report would print screen shots of all input parameters, but this Site-level report prints information for all Phases and Technologies within a selected Site.

New Administrative Land Use Controls Technology

RACER 2006 includes a new technology to estimate costs for administrative land use controls. Land Use Controls (LUCs) are legal or administrative mechanisms that restrict the use of, or access to, property to prevent exposure to hazardous substances, pollutants, or contaminants.

The Administrative Land Use Controls technology includes various tasks such as planning documents, implementation, monitoring, enforcement, modification, and termination of the LUCs.

New Estimating Templates

Four new Estimating Templates have been added to the Level 2 Site Definition tab. *RACER* 2006 includes a new Air Force Template titled Non-ERA (Environmental Restoration Account) and three new RCRA Subtitle D Templates for municipal solid waste, construction & demolition waste, and industrial non-hazardous waste.

New MMRP Supplemental Investigation Technology (for USAF Users)

The Military Munitions Response Program (MMRP) Supplemental Investigation technology includes activities and tasks associated with unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC) from munitions contaminated property. This technology links the related MMRP tasks, such as Relative Risk Analysis, Explosive Safety Submission, Risk Assessment, Supplemental Geophysics, UXO Safety Oversight, and Natural and Cultural Resources Survey, and applies the associated costs of conducting focused application of these tasks for remedial activities at former range areas. This technology covers the costs of office and field related MMRP tasks. The USAF MMRP estimating templates have also been revised to include the new technology which replaces the User Defined Estimate technologies that were used in *RACER* 2005.

This technology is available to selected Air Force estimators and can be activated by running a utility available through the Air Force Center for Environmental Excellence Range Division (AFCEE TDR). The points of contact at AFCEE TDR to obtain the utility are:

David Patterson
DSN 240-2929
(210)-536-2929
david.patterson@brooks.af.mil

Joan Kuecker
DSN 240-5630
(210)-536-5630
joan.kuecker.ctr@brooks.af.mil

Sonic Drilling Method

Sonic Drilling has been added as a drilling method to several technologies in *RACER*. Assemblies were added to the database for sonic drilling and the mobilization and demobilization of the sonic drilling equipment. Additionally, the drilling tab has been restructured so that all drilling parameters are now required parameters. If you would like to use Sonic Drilling in place of another drilling method in an existing estimate, you will need to rerun

that Technology and select Sonic Drilling as the Drilling Method. The following Technologies now include Sonic Drilling in the Drilling Method dropdown list:

- Air Sparging
- Bioslurping
- Bioventing
- Groundwater Monitoring Wells
- Soil Vapor Extraction

Changes to the Operations & Maintenance Phase

The appearance of Operations & Maintenance (O&M) has been changed from scrolling through 11 steps in the O&M Wizard to a Technology format. Instead of clicking the Next button to scroll through the steps, O&M will have the various steps on tabs and an Accept button that opens the next tab. Once O&M has been run to cost, all tabs are available, simplifying changes that are made at a later time.

Previously, only O&M could be run in the O&M Phase. Now, in addition to O&M, the following technologies can also be run in the O&M Phase:

- Administrative Land Use Controls
- Decontamination Facilities
- Five-year Review
- MEC Institutional Controls
- MEC Monitoring
- Monitoring
- Natural Attenuation
- Off-site Transportation and Waste Disposal
- Residual Waste Management
- Site Close-out Documentation
- User Defined Estimate

In the past, O&M could be run in the O&M Phase, the Removal/Interim Action (R/IA) Phase, or the Remedial Action (RA) Phase. For *RACER* 2006, the functionality to run O&M in the RA Phase has been removed. If your prior estimates from *RACER* 2004 or *RACER* 2005 contain O&M costs in the RA Phase, a message box will appear during importing or upgrading that asks whether you would like to keep the O&M costs in the RA Phase or to pull out the O&M costs as a separate Phase under the same Site. When the O&M costs are kept in the Phase, O&M costs will be listed as a separate technology on the RA Phase screen.

If your prior estimates from *RACER* 2004 or *RACER* 2005 contain O&M costs in the R/IA Phase, the O&M startup costs and O&M costs will be listed separately in the R/IA Technology grid. Marked up O&M costs from the prior version may change due to the markup template being applied and the General Conditions percentage changing due to the change in total Phase cost. Previously, O&M had its own markup template within the O&M Wizard. The inclusion of

O&M costs in the R/IA or RA Phase will use the R/IA or RA Phase markups template and change the Total Direct Cost for the Phase.

Changes to the Remedial Design Phase

New functionality has been added to the Remedial Design (RD) Phase. Previously, there was only one Phase Start Date field on the RD (Percent) Phase screen, even if you ran multiple Removal/Interim Action (R/IA) or Remedial Action (RA) Phases. The design cost year was assigned using the R/IA or RA Phase Start Date in the Cost Over Time Report. Now, the user can assign a year in which the design costs are incurred for each R/IA and RA phase.

Additionally, the user can add multiple RD Phases, where prior versions limited the user to one RD Phase. Users have the ability to have both RD (Percent) and RD (Detail) phases under the same Site. Users must select which R/IA or RA phases they wish to include in each RD (Percent) Phase. RD (Percent) or RD (Detail) Phases can be added as long as there are R/IA or RA phases that are not included in another RD (Percent) Phase.

Functionality Changes to *RACER*

Changes to the Main Screen

The title bar now displays the file path and file name for the database currently in use. Additionally, the database name is also shown next to the *RACER* Globe in the estimating tree.

The file menu includes an option called New that allows the user to create a new database. This database is a copy of the BlankRACER database and does not contain any estimates or Preferences. This allows the user to import estimates into a clean database while keeping their estimates separate. To switch back to your original estimates from the import database, use the Change Database option under the File menu.

Changes to the Level 1 (Project) Screen

The Level 1 tab has been divided into three input tabs. This functionality was added to simplify the appearance of the input screen for Level 1 and to match the format of the Level 2 tabs that was implemented for *RACER* 2005.

The date has been eliminated from the Level 1 screen. Default values for the Material, Labor and Equipment location modifiers have been added. If the user changes a location modifier, an explanation is required.

New locations have been added to the State/Country and City fields on the Project Definition tab. To see a list of added locations, click here.

Changes to the Level 2 (Site) Screen

New fields have been added to the Documentation tab for documentation of reference sources and the estimator's support team. These data elements are required when setting up a new estimate.

Changes to the Level 3 (Phase) Screen

Users can select a markup template for a new Phase after entering a name. In the past, users had to add technologies before this functionality was available.

Importing and Upgrading

If the markup template for any Level 3 (Phase) is missing from the database from which estimates are being imported or upgraded, a log file will be written and displayed to the user at the end of the import or upgrade process. If the log file is shown, open the listed estimates and choose a valid markup template.

If you imported or upgraded prior estimates and did not choose to Price Level Project Costs at the end of the import or upgrade process, the Database Cost Type on the Level 1 Options tab will be inactive. To update the costs to the current year, under the Utilities menu, select Price Level Project Costs and check off that Project to update assembly prices to 2006 costs.

If you used the Hollow Stem Auger drilling method with a Consolidated formation type, the estimate will be changed to Air Rotary for all applicable drilling models (see the above list in the Sonic Drilling section). If these conditions apply to any Technologies in your estimate, this change will be documented in your log file and will tell you which Technologies are affected by this change. You will need to re-run each of these Technologies by re-entering or re-selecting a secondary parameter. This will bring in the correct assemblies for air rotary drilling.

You may want to update the unit costs to those in the current database. At the end of the upgrade process a screen is displayed for this purpose. At any time, the user may select Utilities | Price Level Project Costs from the main RACER menu to view the same screen. The screen displays all the estimates that show a cost date prior to the current version. Select the estimates you want to price level.

Price leveling reapplies area cost factors and safety productivity adjustments to the current unit costs for the selected estimates. However, the recalculation is not able to correctly compute the Other Direct Costs lump sum price, and is not able to correctly calculate assemblies related to analytical templates if the turn around time and/or quality control level is anything other than standard. If these apply to any of the technologies in your estimates, it is recommended that you re-run the affected technologies.

Default Analytical Templates

All technologies that have fields for analytical templates will base the default analytical template on the Primary Contaminant selected on the Level 3 (Phase) screen. Technologies that include secondary analytical templates will use the Secondary Contaminant to set the default template.

Reporting of No-Markup Assemblies

The Assembly Qty / $ screen has a new column to designate whether the assembly is excluded from being marked up. Each assembly now has a checkbox that indicates whether the assembly is included in the "No Markup Assemblies" preference.

Preferences

The Safety Level preference no longer contains O&M safety level for RA and IA phases, but now has a new safety level for O&M phases. The selected Safety Level will be applied as the default to all Technologies run in the O&M phase.

Reports

The report headings for Levels 1, 2 and 3 have been standardized for reports run at all levels. Reports have been revised to reflect changes to the Level 1 and 2 screens and reflect the changes made to the RD percent Phase. More Level 3 reports are available for the RD (Percent) Phase.